

## Munition with extended range wings glides to target

by Rex Swenson, Munitions Directorate

EGLIN AFB, FLA. — Officials at the Air Force Research Laboratory Munitions Directorate in conjunction with Alenia Marconi Systems and Boeing conducted a crossrange flight test of a modified Joint Direct Attack Munition (JDAM) recently at White Sands Missile Range in New Mexico.

Known as the JDAM-ER (for Extended Range), the weapon incorporates the use of a strap on wing device called Diamond Back. According to Air Force Lt. John Mehrman, JDAM-ER program manager, the Diamond Back is a low cost, high performance wing kit, which features a joined tandem wing design. The wings extend from a compact storage position and once they are fully deployed, they form a diamond-shaped platform.

In describing the test, Mehrman said the weapon was launched from an F-16 at 21,000 feet at .78 Mach and within 4 seconds the wings deployed and it began gliding down range on its own. After flying 11 nautical miles down range and 4 nautical miles crossrange, the JDAM-ER hit within lethal distance of its target at a specified GPS coordinate.

“Diamond Back increases the range of the JDAM from 8 to approximately 24 miles when launched at 20,000 feet,” Mehrman said. “This not only extends the range of the

weapon, but also helps protect our warfighters by providing additional survivability for the delivery aircraft. It also allows the attack of multiple, widely separated targets from a single release point,” he said. @



**THE MUNITIONS BENEATH MY WINGS** — Pictured is the JDAM-ER (for Extended Range). The weapon incorporates the use of a strap on wing device called Diamond Back. Officials at the Air Force Research Laboratory Munitions Directorate in conjunction with Alenia Marconi Systems and Boeing conducted a crossrange flight test of a modified Joint Direct Attack Munition (JDAM) recently at White Sands Missile Range in New Mexico.